

CLAIMS:

1. A medical imaging system, comprising:
a system clock for generating a synchronization signal;
an imaging sub-system that procures a plurality of time domain images of a patient
digitally converts the time domain images to digitized time domain image data;
a sound recording sub-system that records, digitizes and time-stamps at least one
channel of sound related to the time domain images in accordance with the synchronization
signal, the sound recording sub-system indexing the at least one channel of sound to events
in the plurality of time domain images in order to realize a set of digitized, time-stamped
audio data synchronized with the time-stamped, digitized time domain image data.
2. The medical imaging system as set forth in claim 1, further comprising: a memory
for digitally storing the indexed, time-stamped audio data.
3. The medical imaging system as set forth in claim 2, further comprising a playback
sub-system that accesses and displays reconstructed images from the digitized time
domain image data and synchronizes the playing of the time-stamped audio data, based on
the events.
4. The medical imaging system as set forth in claim 1, wherein the imaging sub-
system comprises an ultrasound imaging system.
5. The medical imaging system as set forth in claim 4, wherein the at least one
channel of sound is digitized at 22 to 44.1 KHz and encoded in a wave compatible format.
6. The medical imaging system as set forth in claim 4, wherein the at least one
channel of sound comprises a Doppler audio signal.
7. The medical imaging system as set forth in claim 4, wherein the at least one
channel of sound comprises ECG sounds.
8. The medical imaging system as set forth in claim 4, wherein the at least one
channel of sound comprises heart sounds.
9. The medical imaging system as set forth in claim 4, wherein the at least one
channel of sound comprises respiration sounds.
10. The medical imaging system as set forth in claim 1, wherein the at least one
channel of sound includes dictation audio and wherein the medical imaging system further
comprises:

a voice recognition subsystem that translates the dictation audio into typed text, and wherein said typed text is time-stamped for indexing and synchronization.

11. The medical imaging system as set forth in claim 1, wherein the sound recording sub-system indexes the at least one channel of sound with clinical information related to the patient.
12. The medical imaging system as set forth in claim 1, wherein the sound recording sub-system indexes the at least one channel of sound with a plurality of pieces of clinical information related to the patient.
13. The medical imaging system as set forth in claim 3, wherein the sound recording sub-system indexes the at least one channel of sound with a plurality of pieces of clinical information related to the patient and wherein the playback sub-system enables the access and playback of multiple pieces of audio information from the at least one channel of sound on a display showing a piece of clinical information related to the patient.
14. The medical imaging system as set forth in claim 1, wherein an event includes: start of exam; change of imaging mode; change of probe; user actuation of a control device; and end of exam.
15. A method for obtaining imaging and sound information during a medical diagnostic procedure, the method comprising:
 - procuring a plurality of time domain images of a patient;
 - digitizing the time-domain images, and time-stamping the digitized time domain images with a system synchronization signal;
 - receiving at least one channel of sound related to the time domain images;
 - digitizing and time-stamping the least one channel of sound with the system synchronization signal to generate at least one digital audio clip;
 - encoding the at least one channel of sound into a computer readable file; and
 - indexing the at least one audio clip to events in the plurality of time domain images based on the time-stamping.
16. The method as set forth in claim 15, further comprising:
 - displaying the plurality of digitized time domain images; and
 - playing the at least audio clip based on the events synchronized with the display of the plurality of time domain images.

17. The method as set forth in claim 15, wherein:
the step of procuring a plurality of time domain images of a patient comprises
procuring a plurality of ultrasound images.
18. The method as set forth in claim 15, wherein the step of digitizing and time-
stamping comprises digitizing the at least one channel of sound at 22 to 44.1 KHz, and
wherein the computer readable file is wave compatible.
19. The method as set forth in claim 15, wherein the at least one channel of sound
comprises a Doppler audio signal.
20. The method as set forth in claim 15, wherein the at least one channel of sound
comprises ECG sounds.
21. The method as set forth in claim 15, wherein the at least one channel of sound
comprises heart sounds.
22. The method as set forth in claim 15, wherein the at least one channel of sound
comprises respiration sounds.
23. The method as set forth in claim 15, wherein the at least one channel of sound
includes dictation audio and wherein the method further comprises:
translating the dictation audio into a computer readable file having character data
which is time-stamped in accordance with the system synchronization signal.
24. The method as set forth in claim 16, further comprising indexing the at least one
audio clip with clinical information related to the patient based on time-stamping in
accordance with the system synchronization signal.
25. The method as set forth in claim 16, further comprising indexing the at least one
audio clip with a plurality of pieces of clinical information related to the patient based on
time-stamping in accordance with the system synchronization signal.
26. The method as set forth in claim 16, further comprising indexing the at least one
audio clip with a plurality of pieces of clinical information related to the patient based on
time-stamping in accordance with the system synchronization signal;
displaying a piece of clinical information related to the patient; and
enabling the access and playback of the at least one audio clip indexed to the piece
of clinical information being displayed upon request by a user.